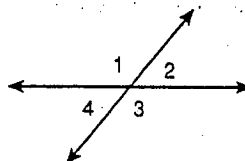


In 1–4, use the diagram to decide whether the statement is true or false.

- If $m\angle 4 = 20^\circ$, then $m\angle 3 = 70^\circ$
- If $m\angle 4 = 120^\circ$, then $m\angle 2 = 120^\circ$
- $m\angle 1 + m\angle 3 = m\angle 4 + m\angle 2$
- $m\angle 2 + m\angle 3 = m\angle 1 + m\angle 4$



In 5, if $\angle 1$ and $\angle 2$ are complementary, copy and complete the table.

$m\angle 1$	35°	?	20°	?	84°	?	7°	?
$m\angle 2$?	55°	?	5°	?	65°	?	21°

In 6, if $\angle 1$ and $\angle 2$ are supplementary, copy and complete the table.

$m\angle 1$	105°	?	47°	?	175°	?	155°	?
$m\angle 2$?	3°	?	58°	?	10°	?	79°

In 7 and 8, determine the measure of $\angle Q$, $\angle R$, and $\angle S$. Assume $\angle R$ is supplementary to $\angle S$ and $\angle R$ is complementary to $\angle Q$.

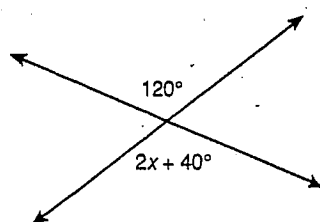
- $m\angle R = x^\circ$, $m\angle Q = x^\circ - 40^\circ$, $m\angle S = x^\circ + 50^\circ$
- $m\angle R = 3x^\circ$, $m\angle Q = x^\circ + 30^\circ$, $m\angle S = 2x^\circ + 105^\circ$

In 9–12, sketch the given angles.

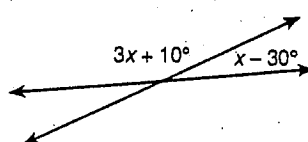
- Vertical angles which measure 40° .
- A linear pair where one angle measures 155° .
- Complementary angles where one angle measures 75° .
- Supplementary angles where one angle measures 80° .

In 13–15, find the value of x .

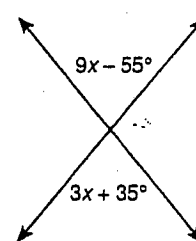
13.



14.

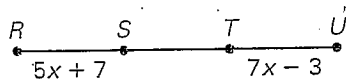


15.

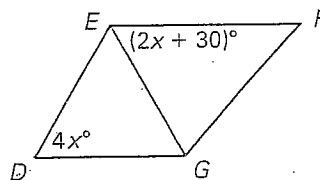


Solve for x using the given information. Explain your steps.

8. GIVEN: S is the midpoint of \overline{RT} .
 T is the midpoint of \overline{SU} .

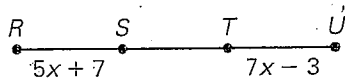


9. GIVEN: $\angle D \cong \angle DEG$, \overline{EG} bisects $\angle DEF$.



Solve for x using the given information. Explain your steps.

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9. GIVEN: $\angle D \cong \angle DEG$, \overline{EG} bisects $\angle DEF$.

